

IN THE CLAIMS

Amend claims 12-17 as set forth below.

1-11. (Canceled).

12. (Currently Amended) A mobile terminal used in a code division multiple access mobile communication system, in which a base station transmits a control signal via perch channels formed such that a long period code assigned to said base station and a first short period code are mapped in a first section of one slot of said perch channel and a predetermined short period code is mapped in a second section of said one slot, said mobile terminal comprising:

an RF unit for converting a received signal of a carrier frequency received from an antenna to a received signal of a baseband; and

a matched filter for receiving input of said baseband signal and calculating a correlation value for said baseband signal by using said predetermined short period code to establish slot timing synchronization,

wherein a symbol length of said predetermined short period code has a smaller value than a symbol length of said first short period code received signal of the baseband,

~~despread said received signal, and outputting a correlation value,~~

~~wherein said received signal includes a control signal, a first section of one slot of said control signal is spread by a long period code assigned to said base station, and a second section of said one slot is spread by a first short period code having a spreading factor smaller than a spreading factor of said long period code and a second short period code having a spreading factor equal to or smaller than the spreading factor of said long period code, and~~

~~said matched filter despreads said control signal by using said first short period code.~~

13. (Currently Amended) A mobile terminal according to claim 12, wherein in said second section are mapped a second short period code, and a third short period code being one of a plurality of short period codes each corresponding to classification of the long period code spreading said first section said first short period code is a short period code common to base stations included in the mobile communication system, and said second short period code has a plurality of

~~short period codes so as to correspond to classification of
the long period code spreading said first section.~~

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14. (Currently Amended) A mobile terminal used in a code division multiple access mobile communication system in which a base station transmits a control signal via perch channels formed such that a long period code assigned to said base station and a first short period code is mapped in a first section of one slot of said perch channel and a predetermined short period code is mapped in a second section of said one slot, said mobile terminal comprising:

an RF unit for converting a received signal of a carrier frequency received from an antenna to a received signal of a baseband; and

a matched filter for receiving input of said baseband signal and calculating a correlation value of said baseband signal and said predetermined short period code, received signal of the baseband, despreading said received signal, and outputting a correlation value,

wherein said received signal includes a control signal, a first section of one slot of said control signal is spread by

~~a long period code assigned to said base station, and a second section of said one slot is spread by a predetermined short period code, and~~

~~wherein the number of taps of said matched filter is smaller than a spreading factor of said long period code of said control signal.~~

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~~15. (Currently Amended) A mobile terminal used in a code division multiple access mobile communication system in which a base station transmits a control signal via perch channels formed such that a long period code assigned to said base station and a first short period code is mapped in a first section of one slot of said perch channel and a second short period code and a third short period code are mapped in a second section of said one slot, comprising:~~

~~an RF unit for converting a received signal of a carrier frequency received from an antenna to a received signal of a baseband signal; and~~

~~a matched filter for calculating a correlation value for said baseband signal despreading said received signal to provide a correlation value,~~

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wherein said received signal includes a control signal, said long period code being assigned to said base station and said first short period code being assigned to each channel of said base station, and said second short period code having a spreading factor smaller than said first short period code and a third short period code having a spreading factor not greater than said first short period code, and a first section of one slot of said control signal being spread by a long period spreading code assigned to said base station and spread by a first short period spreading code assigned to each channel of said base station, a second section of said one slot being spread by a second short period spreading code having a spreading factor lower than those of said long period spreading code and of said first short period spreading code and spread by a third short period spreading code having a spreading factor not higher than those of said long period spreading code and of said first short period spreading code, and

wherein said matched filter calculates the correlation value for said control signal by use of said

~~second short period code despreads said control signal by use of said second short period spreading code.~~

16. (Currently Amended) A mobile terminal according to claim 15, wherein said second short period spreading code is a short period spreading code common to base stations included in the mobile communication system, and said third short period code is one of a plurality of spreading code has short period spreading codes each corresponding to classification of said long period spreading code.

17. (Currently Amended) a mobile terminal used in a code division multiple access mobile communication system, comprising:

a RF unit for converting a received signal of a carrier frequency received from an antenna to a received signal of a baseband; and

a matched filter for calculating a correlation value for said received signal using a predetermined short period code ~~despreading said received signal to provide a correlation value,~~

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wherein said received signal includes a control signal, a first section of one slot of said control signal having mapped in it a long period code assigned to said base station and a short period code assigned to each channel of said base station, a second section of said one slot having mapped in it said predetermined short period spreading code, and a number of taps of said matched filter is smaller than numbers representing spreading factor said short period code mapped in said first section being spread by a long period spreading code assigned to said base station and spread by a short period spreading code assigned to each channel of said base station, a second section of said one slot being spread by a predetermined short period spreading code, and

wherein a number of taps of said matched filter is smaller than numbers representing spreading factors of said long period spreading code and of said short period spreading code.

18. (Previously Presented) A mobile terminal comprising a matched filter having a number of stages, said number of stages of the matched filter being smaller than a number

representing a symbol length of a control signal transmitted in a section other than a long code masked symbol section in one slot on a perch channel, said matched filter having coefficients kept set for constant values.

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19. (Previously Presented) A mobile terminal according to claim 18, wherein said number of stages of said matched filter is equal to a number representing a symbol length of a masked symbol in said long code masked symbol section.

20. (Previously Presented) A mobile terminal according to claim 19, wherein said coefficients of the matched filter correspond to a common short code (CSC) in said long code masked symbol section.